

App. No. 10/005466
Office Action Dated July 16, 2004
Amd. Dated October 13, 2004

REMARKS

Reconsideration is respectfully requested in view of the above amendments and following remarks. Claim 1 is hereby amended. Claim 1 has been amended to recite "conductive particles composed of transition metals", support is at page 13, line 4. No new matter has been added. Claims 1-10 are pending.

Applicants respectfully request claims 11-16 be retained for possible reinstatement if revised to correspond to allowable product claims.

Claim rejections - 35 U.S.C. § 102

Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukui et al. (US 6,440,598). Applicants respectfully traverse the rejection.

Claim 1 is directed to a fuel cell separator. A metal layer is formed on a surface of the separator substrate. A conductive porous layer is formed on the surface of the metal layer. An oxide film is formed on parts of the surface of the metal layer that do not come into contact with the conductive particles.

Fukui teaches a separator for a low-temperature fuel cell. The separator substrate is coated with a metal plating layer in which carbonaceous particles are dispersed within the metal plating layer (Figs. 3A-3D and Figs. 4A-4B). Fukui teaches the use of graphite particles or carbon black aggregates as carbonaceous particles, since they exhibit superior acid resistance without the formation of an oxide film on their surfaces. Fukui mentions petroleum, coke or tar could possibly be used as carbonaceous particles. Fukui however notes oxide films would be easily formed on these particles due to impurities included within these particles, which would result in contamination of a solid macromolecular membrane and inferior performance of the fuel cell.

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Fukui does not disclose or suggest a metal layer formed on a surface of a substrate, a conductive porous layer formed on the surface of the metal layer and an oxide film formed on parts of the surface of the metal layer that do not come into contact with the conductive particles. Thus Fukui fails to anticipate claim 1. Withdrawal of the rejection is respectfully requested.

Claims 2-4 and 6-10 depend either directly or indirectly from claim 1. For the reasons discussed above for claim 1, withdrawal of the rejection is respectfully requested.

Claim rejections - 35 U.S.C. § 103

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukui et al. (US 6,440,598) in view of Kato et al. (WO 01/03214, abstract). Applicants note that the effective prior art date of the Kato reference is January 11, 2001. The present application, however, claims benefit under 35 U.S.C. 119 to Japanese Application Serial No. 2000-342574, filed November 9, 2004. Accordingly, applicants submit a verified translation of the application to perfect the claim to priority. Kato is not available as prior art. Claim 5 depends from claim 1. For the reasons discussed above for claim 1, withdrawal of the rejection is respectfully requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions or concerns regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)371.5237.



Dated: October 13, 2004

DPM:smm

Respectfully submitted,
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By

A handwritten signature in black ink, appearing to read "Douglas P. Mueller".

Douglas P. Mueller
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